

# Bridging the Gap between Patients' Expectations and General Practitioners' Knowledge through Disease Surveillance

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# Overview of presentation

- Introduction
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- Results
- Discussion
  
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- Next step



# Introduction

- Infectious diseases - 25% of all deaths [1]
- WHO – detect outbreaks
- The swine-flu
- Syndromic or symptom-based surveillance
- Public surveillance information based on reports from laboratories, hospitals and general practitioners (GPs).
- How much knowledge GPs actually have about the prevalence of infectious diseases in their local community, and how and from whom do they get this information?



- What do patients expect their local GP to know?
  - Important since the information patients provide to their GP will be influenced by what they expect their GP to know already.
- =>it is interesting to investigate patients' expectations regarding local GPs, and compare them with the GPs' actual knowledge about infectious diseases in the patient population.

## This paper presents

- a quantitative study to investigate “to what degree patients trust their regular doctor to be fully informed about the prevalence of infectious diseases in their neighbourhood”, and
- a qualitative study to investigate “what general practitioners actually know”.

# Method

Investigating patients' expectations regarding local GPs' knowledge

- Professional polling agencies interviewed a representative randomised sample of 1001 Norwegians by telephone
- “To what degree do you trust your regular doctor to be fully informed about the prevalence of infectious diseases in your neighbourhood”.
- Scale from 1 (“very high”) to 5 (“very low”).
- Reversed / SPSS 15.0



# Method

## Investigating what GPs actually know

- Interpretative study approach
- 13 different GPs
- Five individual semi-structured interviews
- Two focus groups
- Recorded
- Transcribed
- Informed consent



The focus group hated it. So he showed it to an out-of-focus group.



The multiple regression analysis – to investigate which variables predicted patients' "confidence in the GP's knowledge":

- Variables selected - correlation analysis and theoretical assumptions

=>patient's trust in their GP predicted by:

- Location ("Where do you live"),
- Gender
- Medical visits in the last twelve months (yes/no)

# Results:

## What the GPs Actually Know

- The 13 GPs - not informed about the prevalence of infectious diseases
- Public surveillance system
  - data several weeks old when it became available
  - not information about the local patient population

*“The reports from the ‘public system’ present ancient data. When we receive the reports people are dead and buried, or they have recovered.”*

# Results:

## What the GPs Actually Know

- Their primary source of information:
  - **The patients.**
- Patients report
  - own symptoms
  - information about family members
  - colleagues
  - children in kindergarten / school
  - other patients at nursing homes
- Information shared between GP-colleagues at lunch or at joint meetings

# Discussion

- Interviews => GPs not very well informed.
- GPs want up-to-date information relevant to the local population [7], but this is not available through the current system
- The SNOW project [10, 11] - a system to improve this situation by extracting and presenting local surveillance data from GPs' EPR, + laboratories and hospitals in real time.

- Patients report symptoms to the GP
  - The GP should enter all these symptoms in a standardised “symptom and diagnosis field” in the EPR.
  - GPs - only enter one (1,3) symptom in the “symptom and diagnosis field” in the EPR, and not all as intended [11, 12].
- => extracting symptom data from the GP’s EPR is unlikely to provide the desired overview for syndromic surveillance [11].

- Patients - the GPs' primary source
- motivation to report to their doctor might be lacking
- to exploit this primary source more reliably – we suggest a new public system for symptom reporting - that will minimize the importance of expectations and trust issues in the doctor-patient relationship, while providing the GP's with up-dated information.

- Realised by patients reporting symptoms directly to a neutral and public “patient-informer-based” surveillance system.
- Symptoms reported when they occur  
=>a new approach for syndromic surveillance that might provide  
much more data of  
much better quality than what is available  
today, and at a  
much earlier stage.



- Template - copy the symptoms both into the patient's EPR + the public surveillance system.
- into the EPR =>patients would report correct data.
- Might analyse symptoms and provide diagnostic aid for patients and links to further reading
- Individual symptoms - together with the prevalence of diagnosed diseases that match these symptoms -presented to the GP when the patient arrives, + an overview of what is brewing based on symptoms reported by other local patients, to guide the GP in the diagnosing process.

# Related work and possible input

- Google Flu Trends
- Use of online social networks like for instance Facebook and MySpace.
- a study from the Netherlands:
  - this approach is feasible in influenza surveillance;
  - the information gathered is reliable, and
  - the pattern of influenza cases is comparable to traditional approaches

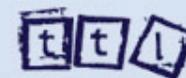
# Unpublished data and Next Steps

Survey - people's attitude towards providing symptom information electronically

- what sources or
- channels or
- methods they would prefer
- Eighty-seven people
  - 42 female and 45 male.



- 93 % - positive to provide symptom information
- Preferred email as their highest priority, web interface being the next priority.
- people say that they would report symptoms
- Need to find out if people actually are willing to report symptom, and the quality and correctness of these symptoms.
- Next step – conduct a study to investigate if patients actually are able and willing to report and rate symptoms electronically



Thank you!

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